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drive. The average temperature of the dispensed fuel shall be 65±5 °F (18±3 °C).

- (2) The fuel shall be dispensed at a rate of 9.8 ± 0.3 gallons/minute $(37.1\pm1.1\ l/min)$ until the automatic shutoff is activated.
- (3) If the automatic shutoff is activated before the nozzle has dispensed an amount of fuel equal to 70 percent of the tank's nominal capacity, the dispensing may be resumed at a reduced rate. Repeat as necessary until the nozzle has dispensed an amount of fuel equal to at least 70 percent of the tank's nominal capacity.
- (4) Once the automatic shutoff is activated after the nozzle has dispensed an amount of fuel equal to 70 percent of the tank's nominal capacity, the fuel shall be dispensed at a rate of 5±1 gallons/minute (19±4 ℓ /min) for all subsequent dispensing. Dispensing shall be restarted two additional times.
- (5) If the nozzle has dispensed an amount of fuel less than 85 percent of the tank's nominal capacity after the two additional dispensing restarts, dispensing shall be resumed, and shall continue through as many automatic shutoffs as necessary to achieve this level. This completes the fueling procedure.
- (j) Withdraw the nozzle from the vehicle and the bag, holding the tip of the nozzle upward to avoid any dripping into the bag.
- (k) Within 1 minute after completion of the fueling event, the bag shall be folded to minimize the vapor volume inside the bag. The bag shall be folded as quickly as possible to prevent evaporation of collected emissions.
- (l) Within 5 minutes after completion of the fueling event, the mass of the bag and its contents shall be measured and recorded (consistent with paragraph (c) of this section). The bag shall be weighed as quickly as possible to prevent evaporation of collected emissions

[58 FR 16063, Mar. 24, 1993, as amended at 60 FR 43906, Aug. 23, 1995; 65 FR 59958, Oct. 6, 2000]

Subpart N—Emission Regulations for New Otto-Cycle and Diesel Heavy-Duty Engines; Gaseous and Particulate Exhaust Test Procedures

AUTHORITY: Secs. 202, 206, 207, 208, 301(a), Clean Air Act as amended 42 U.S.C. 7521, 7524, 7541, 7542, and 7601.

SOURCE: 48 FR 52210, Nov. 16, 1983, unless otherwise noted.

§86.1301 Scope; applicability.

This subpart specifies gaseous emission test procedures for Otto-cycle and diesel heavy-duty engines, and particulate emission test procedures for diesel heavy-duty engines, as follows:

(a) For model years 1990 through 2003, manufacturers must use the test procedures specified in §86.1305–90.

- (b) For model years 2004 through 2009, manufacturers may use the test procedures specified in §86.1305-2004 or §86.1305-2010. For any EPA testing before the 2010 model year, EPA will use the manufacturer's selected procedures for mapping engines, generating duty cycles, and applying cycle-validation criteria. For any other parameters, EPA may conduct testing using either of the specified procedures.
- (c) For model years 2010 and later, manufacturers must use the test procedures specified in §86.1305-2010.
- (d) As allowed under subpart A of this part, manufacturers may use carryover data from previous model years to demonstrate compliance with emission standards, without regard to the provisions of this section.

[70 FR 40438, July 13, 2005]

§ 86.1302–84 Definitions.

The definitions in \$86.084-2 apply to this subpart.

§ 86.1303–84 Abbreviations.

The abbreviations in \$86.084-3 apply to this subpart.

§86.1304 Section numbering; construction.

(a) Section numbering. The model year of initial applicability is indicated by the section number. The digits following the hyphen designate the first

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model year for which a section is applicable. The section continues to apply to subsequent model years unless a later model year section is adopted. (Example: §86.13xx-2004 applies to the 2004 and subsequent model years. If a §86.13xx-2007 is promulgated it would apply beginning with the 2007 model year; §86.13xx-2004 would apply to model years 2004 through 2006.)

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model year.

[65 FR 59958, Oct. 6, 2000. Redesignated and amended at 70 FR 40438, July 13, 2005]

§86.1305-90 Introduction; structure of subpart.

- (a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emission tests on Otto-cycle and diesel heavy-duty engines. Subpart A sets forth the testing requirements and test intervals necessary to comply with EPA certification procedures.
- (b) Four topics are addressed in this subpart. Sections 86.1306 through 86.1315 set forth specifications and equipment requirements; §§ 86.1316 through 86.1326 discuss calibration methods and frequency; test procedures are listed in §§ 86.1327 through 86.1341; calculation formula are found in § 86.1342; and data requirements are found in § 86.1344.

[54 FR 14571, Apr. 11, 1989]

§86.1305-2004 Introduction; structure of subpart.

- (a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emissions tests on Otto-cycle and diesel-cycle heavy duty engines. Subpart A of this part sets forth the emission standards and general testing requirements to comply with EPA certification procedures.
- (b) This subpart contains five key sets of requirements, as follows: specifications and equipment needs (§\$ 86.1306 through 86.1314); calibration methods and frequencies (§\$ 86.1316 through 86.1326); test procedures (§\$ 86.1327 through 86.1341 and §\$ 86.1360 through 86.1380); calculation formulas

(§§ 86.1342 and 86.1343); and data requirements (§ 86.1344).

[65 FR 59958, Oct. 6, 2000]

§86.1305–2010 Introduction; structure of subpart.

- (a) This subpart specifies the equipment and procedures for performing exhaust-emission tests on Otto-cycle and diesel-cycle heavy-duty engines. Subpart A of this part sets forth the emission standards and general testing requirements to comply with EPA certification procedures.
- (b) Use the applicable equipment and procedures for spark-ignition or compression-ignition engines in 40 CFR part 1065 to determine whether engines meet the duty-cycle emission standards in subpart A of this part. Measure the emissions of all regulated pollutants as specified in 40 CFR part 1065. Use the duty cycles and procedures specified in §86.1333-2007, §86.1360-2007, and §86.1362-2007. Adjust emission results from engines using aftertreatment technology with infrequent regeneration events as described in §86.004-28.
- (c) The provisions in §86.1370–2007 and §86.1372–2007 apply for determining whether an engine meets the applicable not-to-exceed emission standards.
- (d) Measure smoke using the procedures in subpart I of this part for evaluating whether engines meet the smoke standards in subpart A of this part.
- (e) Use the fuels specified in 40 CFR part 1065 to perform valid tests, as follows:
- (1) For service accumulation, use the test fuel or any commercially available fuel that is representative of the fuel that in-use engines will use.
- (2) For diesel-fueled engines, use the ultra low-sulfur diesel fuel specified in 40 CFR part 1065 for emission testing.
- (f) You may use special or alternate procedures to the extent we allow them under 40 CFR 1065.10.
- (g) This subpart applies to you as a manufacturer, and to anyone who does testing for you.

[70 FR 40438, July 13, 2005]